

Subject: Science

Grade: Seventh

Standard: #5 The Human Organism

**Key Concept:** Basic functions of the systems of the human body provide us with the essential requirements for life.

**Generalization:** The circulatory, respiratory, and digestive systems work together to respond to the changing demands of our bodies.

**Background:**

Students have been studying the circulatory, respiratory, and digestive systems in a unit on the human body. They have knowledge of the organs that make up each system and how each organ functions. This lesson is used to introduce students to female scientists who have contributed to our understanding of these three body systems. In addition, the lesson serves as a review of each system.

The activities are from Women Life Scientists: Past, Present, and Future, ISBN 1-890251-00-3, published by the American Physiological Society, APS Publication Number ED97-1. Each activity includes a brief biography of the female scientist, a hands-on, inquiry-approach activity which is related to her work, suggestions for student assessment, and a resource list. Complete directions and a materials list is included with the activity in the book.

This lesson is tiered in *content* according to *interest*.

Tier I: **Kim Barrett - Digestion** - Activity #1 - Just Passing Through?

Tier II: **Joyce Jones - Circulation** - Activity #1 - Arteries and Plaque

Tier III: **Maria Mayorga - Respiration** Activity #2 - Diagnosing the Damaged Lung

Assessment:

Teacher observation and student interviews during the investigation will serve as formative assessments. Students' laboratory reports and designs may be assessed with a rubric. Following the activities, students should come together and share what they did with the rest of the class. During this time, the teacher may choose to assess learning again through a rubric or checklist.